ELSEVIER

Bioenergetics
(including Reviews on Bioenergetics)
Vol. 1273, 1996

BBA Biochimica et Biophysica Acta

Cumulative Contents

Publisher's Note *vi*

Information for Contributors *vii*

Rapid Report

Bicarbonate-reversible formate inhibition at the donor side of Photosystem II
H. Wincencjusz, S.I. Allakhverdiev, V.V. Klimov and H.J. Van Gorkom (The Netherlands, Russian Federation) 1

Regular papers

Estimation of the H^+/H^- ratio of the reaction catalysed by the nicotinamide nucleotide transhydrogenase in chromatophores from over-expressing strains of *Rhodospirillum rubrum* and in liposomes inlaid with the purified bovine enzyme
T. Bizouarn, L.A. Sazanov, S. Aubourg and J.B. Jackson (UK) 4

Dependence of flux size and efficiency of oxidative phosphorylation on external osmolarity in isolated rat liver mitochondria: role of adenine nucleotide carrier
A. Devin, B. Guérin and M. Rigoulet (France) 13

Comparison of the inhibitory action of synthetic capsaicin analogues with various NADH-ubiquinone oxidoreductases
T. Satoh, H. Miyoshi, K. Sakamoto and H. Iwamura (Japan) 21

Effects of chloride ion substitutes and chloride channel blockers on the transient outward current in rat ventricular myocytes
T. Lefevre, I.A. Lefevre, A. Coulombe and E. Coraboeuf (France) 31

Two-dimensional crystals of LH2 light-harvesting complexes from *Ectothiorhodospira sp.* and *Rhodobacter capsulatus* investigated by electron microscopy
F. Oling, E.J. Boekema, I. Ortiz de Zarate, R. Visschers, R. Van Grondelle, W. Keegstra, A. Brisson and R. Picorel (The Netherlands, Spain) 44

Biochemical studies of the *c*-type cytochromes of the sulfate reducer *Desulfovibrio africanus*. Characterization of two tetraheme cytochromes c_3 with different specificity
L. Pieulle, J. Haladjian, J. Bonicel and E.C. Hatchikian (France) 51

Reconstitution of the F_1-ATPase activity from purified α, β, γ and δ or ϵ subunits with glutathione *S*-transferase fused at their amino termini
Y. Shin, K. Sawada, T. Nagakura, M. Miyanaga, C. Moritani, T. Noumi, T. Tsuchiya and H. Kanazawa (Japan) 62

Erratum

Erratum to: Contribution of nitrate to H^+ permeability of *Synechococcus* PCC 6311 plasmalemma vesicles [Biochim. Biophys. Acta 1230 (1995) 91–96]
M. Zinovieva, C. Fresneau and B. Arrio (France, Russia) 71

Publisher's Note *iv*

Rapid report

Different cardiac myosin isoforms exhibit equal force-generating ability in vitro
S. Sugiura, N. Kobayakawa, S.-i. Momomura, S. Chaen, M. Omata and H. Sugi (Japan) 73

Short sequence-papers

Isolation of the *vma-6* gene encoding a 41 kDa subunit of the *Neurospora crassa* vacuolar ATPase, and an adjoining gene encoding a ribosome-associated protein
V.I. Melnik and B.J. Bowman (USA) 77

The *coxD* gene for heme O synthase in *Synechocystis*
M. Malakhov, H. Wada, D. Los and N. Murata (Japan) 84

Review

NADPH oxidase of neutrophils
L.M. Henderson and J.B. Chappell (UK) 87

Regular papers

Electronic structure of the oxidized primary electron donor of the HL (M202) and HL (L173) het-

erodimer mutants of the photosynthetic bacterium *Rhodobacter sphaeroides*: ENDOR on single crystals of reaction centers
M. Huber, R.A. Isaacson, E.C. Abresch, D. Gaul, C.C. Schenck and G. Feher (Germany, USA) 108

Nucleotide and amino acid sequences for cytochrome caa_3-type oxidase of *Bacillus stearothermophilus* K1041 and non-Michaelis-type kinetics with cytochrome *c*
T. Kusano, S. Kuge, J. Sakamoto, S. Noguchi and N. Sone (Japan) 129

Intramembrane electron transfer: processes in the photosynthetic reaction center
L.I. Krishtalik (Russia) 139

Changes in light energy distribution upon state transitions: an in vivo photoacoustic study of the wild type and photosynthesis mutants from *Chlamydomonas reinhardtii*
R. Delosme, J. Olive and F.-A. Wollman (France) 150

The membrane-bound cytochrome c_y of *Rhodobacter capsulatus* can serve as an electron donor to the photosynthetic reaction center of *Rhodobacter sphaeroides*
F.E. Jenney Jr., R.C. Prince and F. Daldal (USA) 159

NADPH-specific quinone reductase is induced by 2-methylene-4-butyrolactone in *Escherichia coli*
M. Hayashi, H. Ohzeki, H. Shimada and T. Unemoto (Japan) 165

Low-temperature spectroscopy of monomeric and trimeric forms of reconstituted light-harvesting chlorophyll *a*/*b* complex
E.J.G. Peterman, S. Hobe, F. Calkoen, R. Van Grondelle, H. Paulsen and H. Van Amerongen (The Netherlands, Germany) 171

Exciton equilibration and Photosystem II exciton dynamics – a fluorescence study on Photosystem II membrane particles of spinach
H. Dau and K. Sauer (USA) 175

Publisher's Note *iv*

Rapid report

Identification of an aspartic acid residue in the β subunit which is essential for catalysis and proton pumping by transhydrogenase from *Escherichia coli*
J. Meuller, X. Hu, C. Bunthof, T. Olausson and J. Rydström (Sweden) 191

Short sequence-papers

Nucleotide sequence of the *PetM* gene encoding a 4 kDa subunit of the cytochrome b_6f complex from *Chlamydomonas reinhardtii*
S.L. Ketchner and R. Malkin (USA) 195

The deduced primary structure of subunit I from cytochrome *c* oxidase suggests that the genus *Polytomella* shares a common mitochondrial origin with *Chlamydomonas*
A. Antaramian, R. Coria, J. Ramírez and D. González-Halphen (Mexico) 198

The cDNA sequence of proton-pumping nicotinamide nucleotide transhydrogenase from man and mouse
E.L. Arkblad, C. Betsholtz and J. Rydström (Sweden) 203

Regular papers

K^+-dependent Na^+ transport driven by respiration in *Escherichia coli* cells and membrane vesicles
M.L. Verkhovskaya, M.I. Verkhovsky and M. Wikström (Finland) 207

The polar behavior of frog photoreceptors
E. Chirieri-Kovács, T. Savopol and A. Dinu (Romania) 217

Interrelation between mitochondrial respiration, substrate supply and redox ratio in perifused permeabilized rat hepatocytes
M. Boschmann, W. Halangk and R. Bohnensack (Germany) 223

Evidence for long-range excitation energy migration in macroaggregates of the chlorophyll *a*/*b* light-harvesting antenna complexes
V. Barzda, G. Garab, V. Gulbinas and L. Valkunas (Hungary, Lithuania) 231

Photosystem II of green plants. Oxidation and deprotonation of the same component (histidine?) on $S_1^* \Rightarrow S_2^*$ in chloride-depleted centers as on $S_2 \Rightarrow S_3$ in controls
M. Haumann, W. Drevenstedt, M. Hundelt and W. Junge (Germany) 237

Time-resolved blue-green fluorescence of sugar beet (*Beta vulgaris* L.) leaves. Spectroscopic evidence for the presence of ferulic acid as the main fluorophore of the epidermis
F. Morales, Z.G. Cerovic and I. Moya (France) 251

The coupling of metabolic to secretory events in pancreatic islets. Glucose-induced changes in mitochondrial redox state
R. Ramirez, J. Rasschaert, A. Sener and W.J. Malaisse (Belgium) 263

Cumulative Contents, Vol. 1273 269

Author Index 271